

Turkish Marine Transportation Corridors and Prominent Port Statistics

Dr.Lecturer Gökçe Çiçek CEYHUN¹

¹Bursa Technical University, Bursa, Turkey

Abstract - Turkey, which has important security, energy and transportation corridors in the east – west and north – south direction, has a great importance on the world scale due to its strategic position. From this aspect, the activities and practices related to the maritime transportation corridors of Turkey has a remarkable importance. Corridors connecting different routes represent the main centers of international exchange between regions and countries. Transportation corridors passing through the sea have physical and political limitations, but ports with destination and statistics in these ports constitute important data sets for the development and future of international trade. For this reason, a detailed literature on the maritime transport corridors passing through Turkey is included in this research. Then, in addition to the cargo statistics on the main ports, assessments were made on the future vision of the ports. The result is considered an important and systematic resource for national and international commercial institutions, managers, suppliers and customers using Turkish ports.

Key Words: maritime transportation, marine transportation corridors, prominent Turkish ports

*This paper includes some citations from PhD thesis of the author.

1. INTRODUCTION

The concept of transportation, which is born with the need to move people and goods from one place to another, has preserved its importance from past to present and has continued to increase this importance even more with the development of trade between countries. Turkey which is located in the important transportation corridors with east-west and north – south direction, has remarkable effects on the transportation in the region. Maritime transportation from the maritime corridors has physical and political effects on international trade by providing data sets in the prominent ports. Hence this paper included the maritime transportation corridors of Turkey and then the study has conducted cargo statistics of outstanding ports by evaluating future perspectives of the port.

2. LITERATURE REVIEW

The concept of transportation, which is born with the need to move people and goods from one place to another, has preserved its importance from past to present and has continued to increase this importance even more with the development of trade between countries.

The most important factor in the realization of development in local and international mark In general, transportation involves the movement of people or goods from one place to another, but in the period in which we live, information, money, and services are now accessible from one place to another. In general, transportation involves the movement of people or goods from one place to another, but in the period in which we live, information, money, and services are now accessible from one place to another. In this respect, transportation plays an important role in the formation of relations between various places and regions in the world, in measuring and shaping the geographical view (Gürdal, 1999, Tümertekin and Özgüç, 1990). Transportation means that goods and services are replaced on time by maintaining their value, characteristics and status (Akinyemi, 1980). According to Stopford, transportation refers to the physical transportation of the cargo, from the point of origin of the cargo to the destination, taking into account the speed and security factors that the customer has agreed to pay (Stopford, 1988).

Whether the trade is on a national or international basis, it depends on the transport networks and corridors of sea, inland waterways, land and airways. From an economic point of view, transportation corridors provide two basic elements for development. These are the lower delivery cost and the provision of the supply service needed by a wide range of activities. It is clear that the regional structure is effective in the selection of transport corridors, as the settlement centers are concentrated in efficient areas with adequate space and access. Transportation corridors are connecting channels that enable the transport networks to function effectively. At the same time, the transport corridor is a route in which a considerable load flow is carried by a combination of different modes of transport. A transportation corridor is a set of roads that are composed of different combinations of marine, inland water, land and air transport systems between hub centers. Corridors are structures that extend between collection centers, which are the intersection of transport modes (Çetin, 2007).

In this context, maritime transport routes are corridors which are kilometers away connecting the ports which are the main components of sea / land connection. Although they have strategic locations and compulsory crossing points, they are subject to physical limitations (coasts, winds, sea currents, reefs, ice) and political limitations (Özer, 2010).

3. INTERNATIONAL TRANSPORTATION CORRIDORS PASSING THROUGH TURKEY

Turkey, which is located in east-west and north-south axis with the location of important trade routes, serves as a bridge in the center of the Balkans, the Caucasus and the Middle East. Because of their significant energy resources and transport corridors pass through when viewed from a global perspective, Turkey's significance in international land, sea and rail examining all the transportation networks linked to the current position and to determine the appropriate strategy is important. From a global perspective, it is important to examine Turkey's international network of land, sea and railway interconnected transportation networks as well as to determine the appropriate strategies for its current location. International transportation corridors passing through Turkey was listed as below.

3.1. North-South Marine Transportation Corridors Passing through Turkey

With the advantageous position of having a significant potential for the Port of transit freight transport, Turkey is a candidate to be leader in the area of maritime transport in the north and south direction. In particular, the ports in the Mediterranean Region are in a position to act as a transit / transit port for international maritime transport in the north - south direction. On the other hand, through the Black Sea ports, European outbound cargoes are provided with access to Iran and India through the north - south oriented corridor. In this sense, Turkey, not only creates a branch of the EU transport corridor, also located on the routes of the broader international transport corridors. Thus, even if not registered under international projects passing through Turkey and can be considered as an international transport corridor routes are available.

The only connection between the Black Sea and the Mediterranean Sea is the Bosphorus, the Marmara Sea and the Dardanelles. This situation increases the key role of the straits. The oil and oil derivatives, especially in the Caspian Region and the Caucasus, are descending into the Mediterranean Sea to be delivered to the Far East. In order to provide energy to South Asia and Far East markets, these straits are also very important for Black Sea transport networks. However, the most intense sea transportation networks from the north to the south according to other types of transportation and the intersection point for the exit of these networks from the Black Sea are used intensively (Demirkollu, 2004).

The north - south sea transport corridors in terms of Ro-Ro transportation in Turkey can be listed as (see Figure 1); Pendik-Haydarpaşa-Trieste, Çeşme-Trieste, Kumport-Trieste, Ambarlı-Trieste, Tekirdağ-Trieste, Samsun-Novorossiysk, Samsun-Ilyichevsky, Zonguldak-Ukraine, Rize-Poti, Trabzon-Sochi, Çeşme-Bari, Derince-Köstence, Derince-Ilyichevsky, Zonguldak-Novorossiysk (Görçün, 2009).



Figure 1: North - South Sea Transport Corridors in terms of Ro-Ro Transportation

Source: Görçün, 2009

Short sea shipping transportation corridors via Turkey can be listed as follows; Mersin-Gemlik, Mersin-Port Said, Mersin-Beirut, Mersin-Magosa, Gemlik-Izmir, Gemlik-Novorossiysk, Gemlik-Varna, Ambarlı-Constanta, Izmir-Ashdod, Izmir-Port Said, Zonguldak-Crimea, Samsun-Novorossiysk, Trabzon-Sochi is Rize-Poti.

3.2. East-West Sea Corridors Passing through Turkey

The main purpose of the maritime transportation is to provide the service required by the economic and social objectives of the country in a continuous manner, in harmony with international rules and EU policies, in a manner that is safe, environmentally friendly and integrated with other modes of transportation. Ports, which are the most important infrastructure of maritime transport, are referred to as the doors to which the goods subject to trade enter the economy. A large part of Turkey's international trade is carried by sea, the most economical transportation system. Making a large part of imports and exports by sea, in the center of the world trade lines are an increasingly important part of the harbor in Turkey (UKYMPÇ, 2010).

Besides, main port areas which are effective in marine transportation corridors of Turkey are Iskenderun, Mersin, Taşucu and Antalya in the Mediterranean, Izmir in the Aegean, Nemrut Bay pier and docking structures in the Aegean, Zonguldak, Samsun, Giresun, Trabzon, Rize and Hopa in the Black Sea, Gemlik and Izmit in the Marmara Sea.

Turkey has an important position in the potential of the east - west transportation corridor in the World Trade. Turkey is located on transport networks from Europe to the Middle East and the Far East on this corridor. Izmir and Cesme ports in Aegean, Mersin port in Mediterranean, Haydarpaşa, Derince and special ports in Marmara, Samsun and Trabzon ports in Black Sea, Kapıkule, dereköy, Pazarkule and Ipsala border gates (Demirkollu, 2004). Moreover the effective coastal areas in maritime transportation of Turkey can be seen in Figure 2.

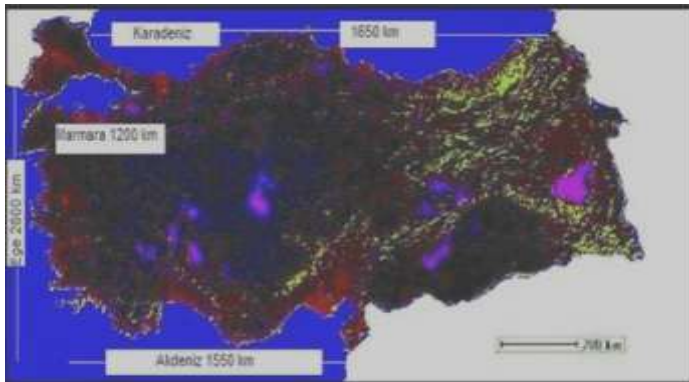


Figure 2: the Effective Coastal Areas in Maritime Transportation

Source: Eğmez, 2007

4. EVALUATION OF PROMINENT PORT STATISTICS OF TURKEY

The overall port statistics of Turkey experienced significant increase in growth from the year of 2003 to 2017. While the amount of cargo handled in Turkish ports was approximately 190 million tons in 2003, it was 471 million tons in 2017 and it increased by 148% compared to 2003. The amount of cargo handled in 2017 increased by 9.5% compared to 2016. At the end of March 2018, the total amount of cargo handled in Turkish ports increased by 5.1% compared to the same period of the previous year (www.turkdeniz.com).

While sea freight transports were 149 million tons in 2003, it increased by 132% in 2017 compared to 2003 and reached 347 million tons. In 2017, the shipments of sea transport have increased by 19.9% compared to the previous year, import transports by 8.6% and the amount of foreign trade transports by sea increased by 12.1% compared to the previous year (www.turkdeniz.com).

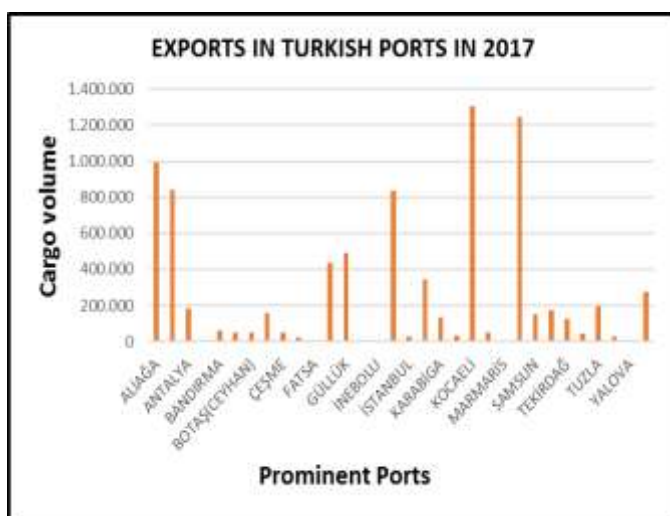


Figure 3: Exports in Turkish Ports in 2017

Source: www.atlantis.udhb.gov.tr

By the end of March 2018, the sea transportation by sea transport decreased by 11.3% with 25 million 816 thousand 865 tons compared to the same period of the previous year. Imports carried out by sea at the end of March 2018 increased 8.3% with 58 million 739 thousand 463 tons compared to the same period of last year (www.turkdeniz.com).

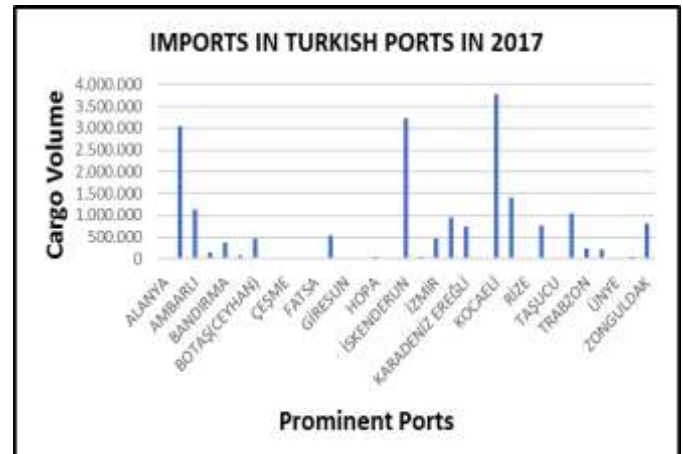


Figure 4: Imports in Turkish Ports in 2017

Source: www.atlantis.udhb.gov.tr

The amount of foreign trade carried out by sea at the end of March 2018 increased by 1.5% with 84 million 556 thousand 328 tons compared to the same period of the previous year. The share of the sea in Turkey's total foreign trade as monetary value increased by 300% in 2017 compared to 2003. It increased from 57 billion dollars in 2003 to 228 billion dollars in 2017. Moreover, the monetary value of the sea in Turkey's total foreign trade increased by 23.6% compared to the same period of the previous year by approximately 39 billion 191 million dollars at the end of February 2018 (www.turkdeniz.com).

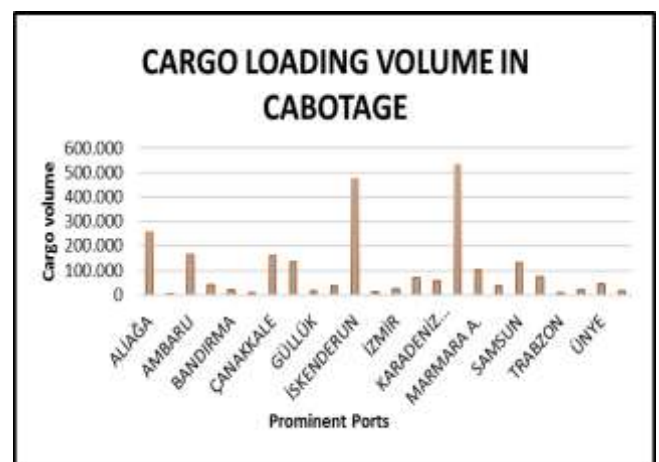


Figure 5: Cargo Loading Volume in Cabotage

Source: www.turkdeniz.com

While the amount of cargo handled in cabotage was 29 million tons in 2003, it increased by 107% in 2017 compared to 2003 and reached 60 million tons. The amount of cargo handled in cabotage increased by 13.3% in 2017 compared to the previous year. The total amount of cargo handled in cabotage at the end of March 2018 increased by 11.5% compared to the same period of the previous year with 14 million 245 thousand 409 tons (www.turkdeniz.com).

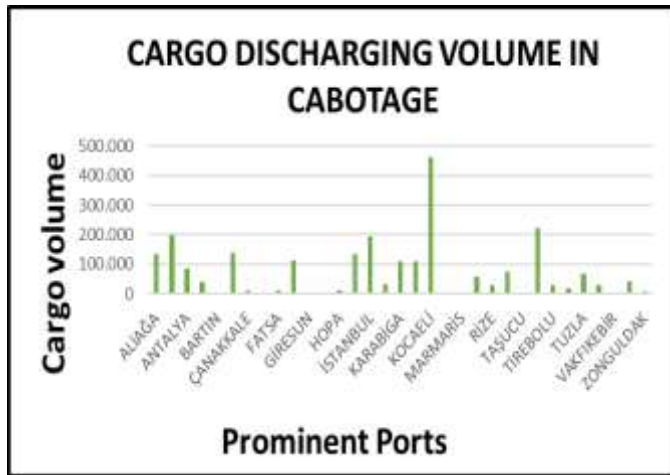


Figure 6: Cargo Discharging Volume in Cabotage

Source: www.turkdeniz.com

5. CONCLUSIONS

Turkey is surrounded by the sea on three sides and has the Straits and the Marmara Sea where the connection between the Black Sea and the Aegean Sea is maintained, with a total coastline of 8300 km. Turkish ports with such a long coastline are contributing to world trade by cargo transportation in large scale. Moreover, it has great importance in terms of being located in important security, energy and transportation corridors in the east – west and north – south direction.

Transportation corridors passing through the sea ports comprise crucial data sets for the development and future of international trade. Cargo handling volumes in transportation corridors and ports passing through Turkey are significant both for EU trade and for World Trade. That's why it is substantial to have an understanding of freight mobility in transportation corridors and ports passing through Turkey.

Turkey, with its east-west and north-south axis position, passes through important trade routes, is a bridge in the center of the Balkans, the Caucasus and the Middle East. From a global perspective, it is important to examine Turkey's international network of land, sea and railway interconnected transportation networks as well as to determine the appropriate strategies for its current location. As in all over the world, ports in Turkey are one of the indispensable sources of income for the country's economy

and therefore port management should be improved and competitive with Europe.

Author Biography

Gökçe Çiçek Ceyhan is Dr.Lecturer in the Department of International Trade and Logistics at Bursa Technical University, where she has been since 2017. From 2012 to 2017 she worked as Asst.Prof.Dr. of Maritime Business Administration in Kocaeli University, Maritime Faculty, Department of Maritime Business Administration. From 2004 to 2009 she worked as ship operation and crew supervisor in private sector (Konvoy Maritime). She received her Ph.D. in Dokuz Eylül University, Institute of Social Sciences, Maritime Business Administration and Management Doctorate Programme in 2011. She received her Postgraduate Degree in Celal Bayar University, Institute of Social Sciences, Management and Organization Master Programme in 2006. She received her Bachelor Degree in Dokuz Eylül University, Faculty of Economics and Administrative Sciences, Department of Business in 2002. Her research interests are maritime transportation and logistics, maritime economics, maritime human resources management, marine province areas and organizational behaviours.

REFERENCES

- [1] Akinyemi, E. (1980). A Policy-Oriented Model System for Transportation Regions or Corridors, State University of New York at Buffalo, University Microfilms International.
- [2] Çetin, İ. (2007). Deniz Ticaretinin Geliştirilmesinde Ulaştırma Ağları İçin İlgili Analizleri :Türkiye-Almanya-Çin Uygulaması. Dokuz Eylül University, Social Sciences Institute, Doctorate Thesis.
- [3] Demirkollu S., (2004). Türkiye'nin Lojistik Üs Olmasına Yönelik Stratejiler Açısından Uluslararası Ulaştırma Koridorlarına Yönelik Bir KZFT Analizi. Dokuz Eylül University, Social Sciences Institute, Master Thesis.
- [4] Eğmez, E.(2007). Akdenizde Düzenli Hat Taşımacılığı, Ağları ve Türkiye'nin Potansiyeli. Dokuz Eylül University, Social Sciences Institute, Master Thesis.
- [5] Görçün, Ö.(2009). Karadeniz Limanlarında İntermodal Taşımacılık ve Kısa Mesafe Deniz Taşımacılığı Analizi. Bahçeşehir University, Institute of Science, Master Thesis.
- [6] Gürdal M.(1999). Turizm Ulaştırması, Adım Yayınları 8, Ankara.
- [7] Özer D. (2010). Türkiye'de Deniz Ulaştırma Politikaları Oluşturma Süreci ve Stratejik Analizler, Dokuz Eylül Üniversitesi Yayınları, İzmir, 2010.

- [8] Stopford, M. (1988). Maritime Economics, Harper Collins Academic.
- [9] Tmertekin E., zgc N.(1990. Ekonomik Coęrafya: Kreselleşme ve Kalkınma, Çantay Kitabevi, İstanbul.
- [10] Ulařtırma Kıyı Yapıları Master Planı Çalıřması, (UKYMPÇ) Taslak Sonu Raporu (2010). Ulařtırma Bakanlığı Demiryolları Limanlar ve Hava Meydanları İnřaatı Genel Mdrlę
- [11] https://atlantis.udhb.gov.tr/istatistik/istatistik_yuk.asp
- [12] <http://turkdeniz.com/2018-yili-Denizcilik-istatistikleri-yayinladi--1796>